

REMARKS

This is in response to the Office Action dated October 27, 2009. In view of the above amendments and the following remarks, reconsideration of the rejection and further examination are requested.

Claims 31-33 have been objected to by the examiner because claim 31 recites “on the medium.” Claim 31 has been amended to recite “on the disk-shaped rotary recording medium,” as suggested by the examiner. Therefore, applicant respectfully requests that the examiner withdraw the objection to claims 31-33.

Rejections under 35 U.S.C §103(a):

Claims 20-22 and 28-37 have been rejected under 35 U.S.C §103(a) as being unpatentable over Applicant Admitted Prior Art (AAPA) in view of Dark (US 6,205,097) and further in view of Staley (US Pub. 2002/0126860). This rejection is submitted to be inapplicable to the claims, as amended, for the following reasons.

Claim 20 discloses that the capacity-lowering section lowers the capacity of the first audio information read by the reading section, such that the second audio information is read before reproduction of the first audio information is completed, during a period of time when the other information is reproduced by the other information reproducing section, and divides the first audio information read by the reading section into a first part whose capacity is lowered by a predetermined capacity-lowering ratio, a second part whose capacity is not lowered, and a third part corresponding to a predetermined interval between the first part and the second part, and whose capacity lowering ratio is gradually changed from the capacity-lowering ratio of the first part to a capacity-lowering ratio of the second part.

The above features as recited in claim 20 allow for the audio information to be reproduced congruously for the user by gradually reducing the capacity-lowering ratio from a part whose capacity is lowered to a part whose capacity is not lowered, and gradually increasing the capacity-lowering ratio from the part whose capacity is not lowered to the part whose capacity is lowered, thus eliminating the “jump” between the parts. The combination of AAPA, Dark, and Staley fails to disclose or suggest the above features as recited in claim 20.

Applicant Admitted Prior Art discloses a reproduction apparatus which is capable of reading and reproducing audio information and image information concurrently from a record medium where the audio information and the image information are recorded. In addition, Dark discloses determining whether another skip is detected during the skip time-out period, storing data from a compact disc at a predetermined compressed rate into a buffer memory if another skip is detected (see col. 1, lines 48-52). However, as discussed in detail in the amendment filed on August 31, 2009, the combination of AAPA and Dark does not disclose the features of claim 20 discussed above.

Staley discloses the dynamic range compression of audio signals. Dynamic range compression, which compresses the dynamic range (or volume) of an audio signal, is distinct and different from audio data compression, which compresses the size of an audio file. Dynamic range compression reduces the differences between high and low intensity portions of an audio signal and is typically used to preprocess signals for audio filters, such as a filter that reduces the number of bits of audio data per sample (i.e., audio data compression) (see paragraph 2). In Staley, an audio multiplier control signal is used to control the dynamic range (volume) of a recorded audio work using gradual adjustments to the gain applied to the signal (see paragraphs 3 and 9). This control signal provides gradual adjustments to the volume in advance of loud or quiet portions of the signal to bring the maximum and minimum volumes into a specified range without noticeable adjustments (see paragraph 15).

Thus, Staley discloses a method of dynamic range compression that could be used to prepare an audio signal for, for example, data compression. However, Staley does not disclose gradually changing the “capacity” (the meaning of “capacity” with reference to the present invention can be found on page 21, lines 8-15, referring to changes in sampling frequency, and page 25, line 25-page 26, line 5, referring to changes in quantization bit number) of the audio information, in a way that prevents a user from noticing the change. Therefore, Staley does not disclose or suggest that the capacity-lowering section lowers the capacity of the first audio information read by the reading section, such that the second audio information is read before reproduction of the first audio information is completed, during a period of time when the other information is reproduced by the other information reproducing section, and divides the first audio information read by the reading section into a first part whose capacity is lowered by a predetermined capacity-lowering ratio, a second part whose capacity is not lowered, and a third

part corresponding to a predetermined interval between the first part and the second part, and whose capacity lowering ratio is gradually changed from the capacity-lowering ratio of the first part to a capacity-lowering ratio of the second part, as recited in claim 20.

Accordingly, no obvious combination of AAPA, Dark, and Staley would result in, or otherwise render obvious under 35 U.S.C. §103(a), the features recited in claim 20. As a result, claim 20 is patentable over the combination of AAPA, Dark, and Staley.

Claims 35 and 37 are patentable over the combination of AAPA, Dark, and Staley for the same reasons as those discussed above with regard to independent claim 20. Specifically, claims 35 and 37 both recite the capacity-lowering section lowers the capacity of the first audio information, expanded by the expanding section, such that the second audio information is read before reproduction of the first audio information is completed, and divides the first audio information read by a reading section into a first part whose capacity is lowered by a predetermined capacity-lowering ratio, a second part whose capacity is not lowered, and a third part corresponding to a predetermined interval between the first part and the second part, and whose capacity lowering ratio is gradually changed from the capacity-lowering ratio of the first part to a capacity-lowering ratio of the second part. Since the combination of AAPA, Dark, and Staley does not disclose or suggest the above features, as recited in claims 35 and 37, it is submitted that claims 35 and 37 are patentable over the combination of AAPA, Dark, and Staley.

Claim 36 is patentable over the combination of AAPA, Dark, and Staley for reasons similar to those discussed above with regard to independent claim 1. Specifically, claim 36 recites that the capacity of the read first audio information is lowered, such that the second audio information is read before reproduction of the first audio information is completed, during a period of time when the other information is reproduced, and divides the first audio information read into a first part whose capacity is lowered by a predetermined capacity-lowering ratio, a second part whose capacity is not lowered, and a third part corresponding to a predetermined interval between the first part and the second part, and whose capacity lowering ratio is gradually changed from the capacity-lowering ratio of the first part to a capacity-lowering ratio of the second part. Since the combination of AAPA, Dark, and Staley does not disclose or suggest the above features, as recited in claim 36, it is submitted that claim 36 is patentable over the combination of AAPA, Dark, and Staley.

Claims 21-22 and 28-34 are either directly or indirectly dependent on independent claim 20. Therefore, claims 20-22 and 28-37 are allowable over the combination of AAPA, Dark, and Staley.

Claim 23 has been rejected under 35 U.S.C §103(a) as being unpatentable over Applicant Admitted Prior Art (AAPA) in view of Dark (US 6,205,097) and Staley (US Pub. 2002/0126860) and further in view of Ohga (US 5,345,433). This rejection is submitted to be inapplicable to the claims, as amended, for the following reasons.

Claim 23 is dependent on independent claim 20 discussed in detail above.

Ohga is relied upon in the rejection as disclosing that audio PCM data having a sampling frequency of 44.1 kHz, 16 quantization bits, is recorded. After bit compression, the sampling frequency of the audio PCM data is converted to 37.8 kHz, while the number of quantization bits is reduced to 4. However, it is apparent that Ohga fails to disclose or suggest the features lacking from the combination of AAPA, Dark, and Staley discussed above with regard to independent claim 20. Accordingly, no obvious combination of AAPA, Dark, Staley, and Ohga would result in, or otherwise render obvious under 35 U.S.C. §103(a), the features recited in claims 20 and 23. As a result, claims 20 and 23 are patentable over the combination of AAPA, Dark, Staley, and Ohga.

Claims 24-26 have been rejected under 35 U.S.C §103(a) as being unpatentable over Applicant Admitted Prior Art (AAPA) in view of Dark (US 6,205,097) and Staley (US Pub. 2002/0126860) and further in view of Tsuji (US 6,324,188). This rejection is submitted to be inapplicable to the claims, as amended, for the following reasons.

Claims 24-26 are dependent on independent claim 20 discussed in detail above.

Tsuji is relied upon in the rejection as disclosing that an eliminating unit for eliminating the frame of a silence signal, from the frames of encoded voice signals, whereby data to be transmitted is generated in the eliminated period of time to enhance the transmission efficiency. However, it is apparent that Tsuji fails to disclose or suggest the features lacking from the combination of AAPA, Dark, and Staley discussed above with regard to independent claim 20. Accordingly, no obvious combination of AAPA, Dark, Staley, and Tsuji would result in, or otherwise render obvious under 35 U.S.C. §103(a), the features recited in claims 20 and 24-26. As a result, claims 20 and 24-26 are patentable over the combination of AAPA, Dark, Staley, and Tsuji.

Because of the above-mentioned distinctions, it is believed clear that claim 20-26 and 28-37 are allowable over the references relied upon in the rejections. Furthermore, it is submitted that the distinctions are such that a person having ordinary skill in the art at the time of the invention would not have been motivated to make any combination of the references of record in such a manner as to result in, or otherwise render obvious, the present invention as recited in claims 20-26 and 28-37. Therefore, it is submitted that claims 20-26 and 28-37 are clearly allowable over the prior art of record.

In view of the above remarks, it is submitted that the present application is now in condition for allowance. The Examiner is invited to contact the undersigned by telephone if it is felt that there are issues remaining which must be resolved before allowance of the application.

Respectfully submitted,

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